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CLAIMS:

What is claimed is:

5   1.   A method in a data processing system for accessing a
client service, the method comprising:
    managing a pool of connections to the client
service;
    responsive to a request from a user application from
10   a plurality of user applications, assigning a client
service from the pool of client service instances;
    invoking the request on the client; and
    responsive to receiving a response from the client
service, returning the result to the user application.
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2.   The method of claim 1 further comprising:
    freeing the client service back to the pool after
invoking the request on the client service.

20   3.   The method of claim 1 further comprising:
    waiting for the response from the client service
after the client service has been invoked; and
    responsive to a timeout occurring while waiting for
the response, returning a response to the user indicating
25   that the timeout has occurred.

4.   The method of claim 1, wherein the user application
is a client application.

30   5.   The method of claim 1, wherein the client service is
an application programming interface to a server process.

6.   The method of claim 5, wherein the server process is

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located on a remote data processing system.

7.   The method of claim 1, wherein the pool of client services is used to access report services on a server.

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8.   The method of claim 1, wherein the response is returned immediately upon receiving the response.

9.   The method of claim 1, wherein a error message is

10   returned to the user application after a period of time passes without receiving the response.

10.   The method of claim 1 further comprising:
        placing the request in a queue if there are no free

15   client services within the pool of client services.

11.   The method of claim 1, wherein a particular client service instance only accepts and processes one request at a time.

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12.   The method of claim 10, wherein the server service is located on a remote data processing system.

13.   A method in a data processing system for accessing a

25   client service, the method comprising:
        receiving requests for the client service, wherein the client service is a single-threaded process;
        queuing a new request if a current request has been invoked on the client service;

30   responsive to receiving a response to the current request from the client service, returning the result to a requestor of the current request; and
        invoking the new request on the client service.

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14.   The method of claim 13, wherein requests are sent to the client service form the queue in a first-in-first-out basis.

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15.   The method of claim 13, wherein the client service is used to access a server process in a server.

16.   The method of claim 13, wherein the client service
10   is an application programming interface to a server process.

17.   A data processing system comprising:
       a bus system;
15   a communications unit connected to the bus system;
       a memory connected to the bus system, wherein the memory includes as set of instructions; and
       a processing unit connected to the bus system, wherein the processing unit executes the set of
20   instructions to manage a pool of connections to the client service; assign a connection from the pool of connections to the client service in response to a request from a client from a plurality of clients; invoke the request on the client service using the connection;
25   and return the result to the user in response to receiving a response from the client service.

18.   A data processing system comprising:
       a bus system;
30   a communications unit connected to the bus system;
       a memory connected to the bus system, wherein the memory includes as set of instructions; and
       a processing unit connected to the bus system,

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wherein the processing unit executes the set of
instructions to receive requests for the client service,
wherein the client service is a single-threaded process;
queue a new request if a current request has been invoked
5   on the client service; return the result to a requestor
of the current request in response to receiving a
response to the current request from the client service;
and invoke the new request on the client service.

10   19. A data processing system for accessing a client
service, the data processing system comprising:
     managing means for managing a pool of connections to
the client service;
     assigning means, responsive to a request from a user
15   application from a plurality of user applications, for
assigning a client service from the pool of client
service instances;
     invoking means for invoking the request on the
client; and
20   returning means, responsive to receiving a response
from the client service, for returning the result to the
user application.

20. The data processing system of claim 19 further
25   comprising:
     freeing means for freeing the client service back to
the pool after invoking the request on the client
service.

30   21. The data processing system of claim 19 further
comprising:
     waiting means for waiting for the response from the
client service after the client service has been invoked;

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and

responsive to a timeout occurring while waiting for the response, returning a response to the user indicating that the timeout has occurred.

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22. The data processing system of claim 19, wherein the user application is a client application.

23. The data processing system of claim 19, wherein the
10 client service is an application programming interface to a server process.

24. The data processing system of claim 23, wherein the server process is located on a remote data processing
15 system.

25. The data processing system of claim 19, wherein the pool of client services is used to access report services on a server.
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26. The data processing system of claim 19, wherein the response is returned immediately upon receiving the response.

25 27. The data processing system of claim 19, wherein a error message is returned to the user application after a period of time passes without receiving the response.

28. The data processing system of claim 19 further
30 comprising:

placing means for placing the request in a queue if there are no free client services within the pool of client services.

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29.   The data processing system of claim 19, wherein a particular client service instance only accepts and processes one request at a time.

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30. The data processing system of claim 27, wherein the server service is located on a remote data processing system.

10   31.   A data processing system for accessing a client service, the data processing system comprising:

receiving means for receiving requests for the client service, wherein the client service is a single-threaded process;

15   queuing means for queuing a new request if a current request has been invoked on the client service;

returning means, responsive to receiving a response to the current request from the client service, for returning the result to a requestor of the current

20   request; and

invoking means for invoking the new request on the client service.

32.   The data processing system of claim 31, wherein

25   requests are sent to the client service form the queue in a first-in-first-out basis.

33.   The data processing system of claim 30, wherein the client service is used to access a server process in a

30   server.

34.   The data processing system of claim 30, wherein the client service is an application programming interface to

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a server process.

35. A computer program product in a computer readable medium for accessing a client service, the computer
5 program product comprising:
first instructions for managing a pool of connections to the client service;
second instructions, responsive to a request from a user application from a plurality of user applications,
10 for assigning a client service from the pool of client service instances;
third instructions for invoking the request on the client; and
fourth instructions, responsive to receiving a
15 response from the client service, for returning the result to the user application.

36. A computer program product in a computer readable medium for accessing a client service, the computer
20 program product comprising:
first instructions for receiving requests for the client service, wherein the client service is a single-threaded process;
second instructions for queuing a new request if a
25 current request has been invoked on the client service;
third instructions, responsive to receiving a response to the current request from the client service, for returning the result to a requestor of the current request; and
30 fourth instructions for invoking the new request on the client service.